

A NEW SPECIES OF *TOXOMERUS* (DIPTERA, SYRPHIDAE) FROM
BRAZIL, WITH NOTES ON THREE RELATED SPECIES

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Abstract.—A new species, *Toxomerus sedmani* Harbach (Diptera, Syrphidae), from Belém, Pará, Brazil is separated and described from the paratype series of *Toxomerus apeiensis* (Harbach). Additionally, the genitalia of the male holotypes of three other *Toxomerus* species are illustrated.

While studying a small group of *Toxomerus* species from Belém, Pará, Brazil (Harbach, 1972), I discovered a new species, *Toxomerus apeiensis* (Harbach), that appeared to be related to *Toxomerus croesus* (Hull). Although it was desirable to compare the new species with the type of *croesus*, the latter was then in the collection of F. M. Hull and not available for examination. For comparative purposes, I borrowed specimens identified as *croesus* from the Canadian National Collection. When I described *apeiensis* (Harbach, 1974), I included an illustration of the male genitalia of the specimens identified as *croesus*. Unfortunately, as I later learned, these specimens had been misidentified. I also found that one of the male paratypes of *apeiensis* was not conspecific with the type. Upon reexamination of all the pertinent material, I determined that the misidentified species was *Toxomerus sylvaticus* (Hull) and found the *apeiensis* paratype to be an undescribed species related to *Toxomerus purus* (Curran). Therewith, the purpose of this work is to describe the new species and provide a brief discussion and detailed illustrations of the male genitalia of *croesus*, *purus* and *sylvaticus*.

Toxomerus sedmani Harbach, NEW SPECIES

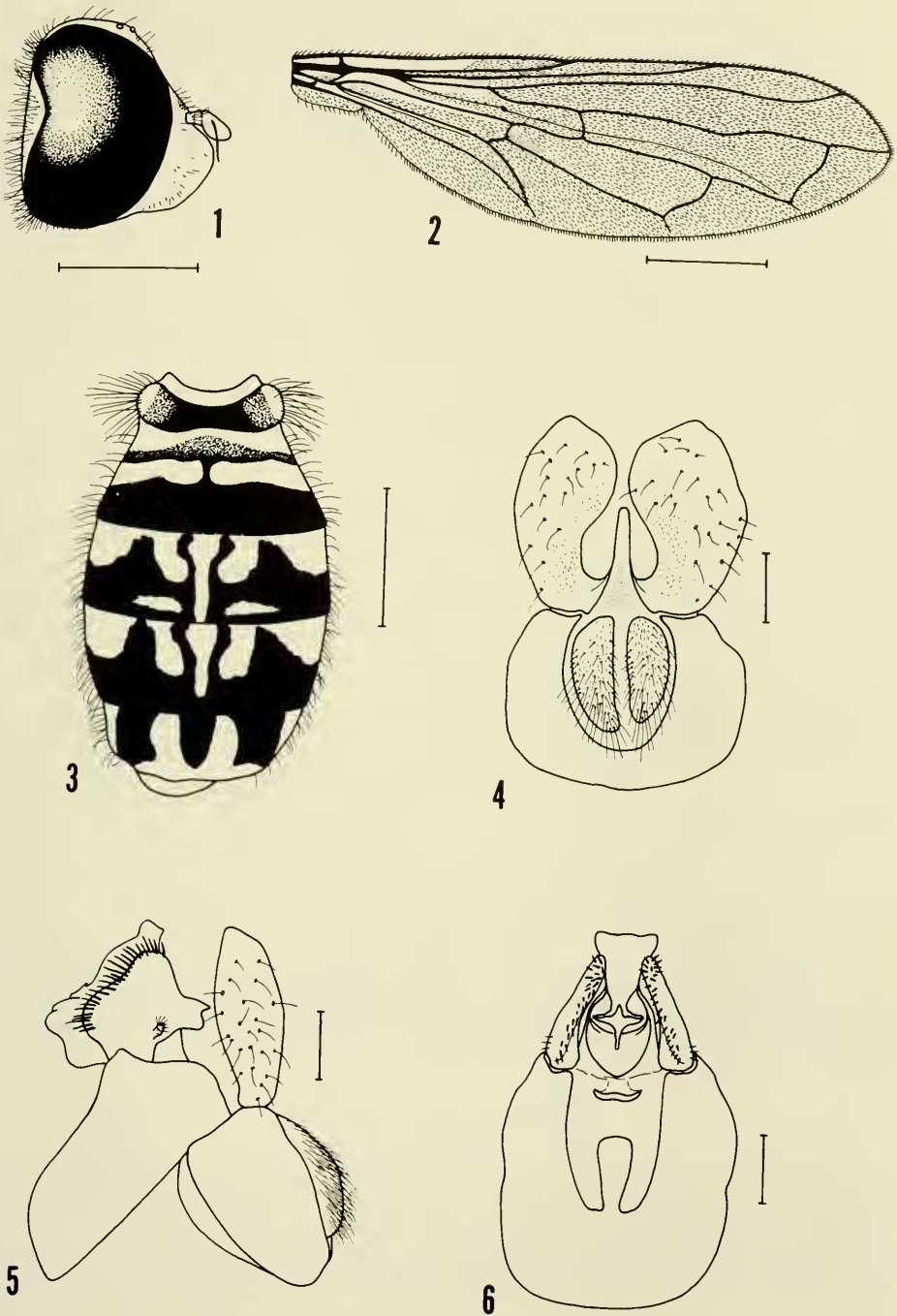
Figs. 1-6

Mesograpta apeiensis Harbach 1974: 31 (in part, one male paratype only).

Male.—Length about 6 mm; body shiny.

Head (Fig. 1): Face yellow, sparsely yellow setose, white pollinose laterally; gena yellow, narrowly brown dorsally; frons yellow, lunule brownish; vertex anterior to ocelli yellow pollinose, ocellar triangle and posterior ½ of vertex black with blue and violet reflections and bluish-green pruinescence; occiput black, golden pollinose dorsally with black setae, densely yellowish-white pollinose laterally with pale yellow scalelike setae; postgena brown, sparsely pale yellow pollinose, yellow setose; antenna yellow, slightly brownish distally, arista brown.

Thorax: Postpronotum yellow; scutum dark brown, yellow setose, with median anterior pale blue pollinose stripe not reaching transverse suture and broad median area black pruinose, the lateral margin yellow and confluent with notopleuron of same color; scutellum brown with margin broadly yellow, brown setose; medio-



Figs. 1-6. *Toxomerus sedmani*, holotype male. 1, Head (right side, drawn before right antenna was discovered missing). 2, Right wing. 3, Abdomen (dorsal). 4, Genitalia (dorsal). 5, Genitalia (lateral, left side). 6, Genitalia (ventral). Scale lines equal 1.0 mm (Figs. 1-3) and 0.125 mm (Figs. 4-6).

tergite, laterotergite, propleuron and mesopleuron mainly brown; propleuron and anatergite golden pollinose; mesopleuron sparsely yellow setose, yellow on posterior $\frac{1}{2}$ of mesanepisternum, yellow spot on dorsal part of mesokatepisternum, brown areas with bluish-white luster; katatergite pale yellow pubescent; metapleuron and halter yellow. *Legs*: Mainly yellow and yellow setose; proximal $\frac{1}{2}$ of forecoxa and basal $\frac{1}{3}$ of midcoxa brown and golden pollinose; midfemur with dorsal preapical brown spot; hindfemur with preapical brown band; hindtibia brown except base and apex; hindtarsus brown setose with fourth and fifth tarsomeres brown; claw black on distal $\frac{1}{2}$. *Wing* (Fig. 2): Yellowish brown, pterostigma slightly darker; distribution of microtrichiae as figured.

Abdomen (Fig. 3): Oval, yellow setose; sterna yellow; tergum 1 dark brown with bluish pruinescence medially, reddish brown sublaterally, yellow laterally; tergum 2 with four fasciae, narrow anterior reddish-yellow fascia widened laterally, 2nd fascia reddish brown and widened medially, irregular 3rd fascia reddish yellow and divided by a narrow median vitta that connects the 2nd and posterior fasciae, the broad posterior fascia dark brown with bluish pruinescence; tergum 3 reddish yellow with pattern of dark brown bearing bluish pruinescence, the reddish yellow areas include a narrow median vitta, 2 submedial lunulate spots, the basolateral angles and a pair of submedial transverse spots near the posterior margin; tergum 4 same as 3 except median vitta not reaching posterior margin and submedial transverse spots absent; tergum 5 reddish yellow with 3 dark brown vittae, the median vitta narrowed and rounded posteriorly, the sublateral vittae somewhat rectangular. *Genitalia* (Figs. 4–6): As figured.

Holotype.—Male with the following collection data: BRAZIL, Pará, Belém, 30 May 1967, Coll. Y. Sedman; and bearing a yellow paratype label and the determination label of *Mesograpta apegiensis* Harbach. Deposited in the Canadian National Collection.

Discussion.—The paratype series of *Toxomerus apegiensis* includes one male of *sedmani* that is obviously not conspecific with the type of *apegiensis*. The specimen apparently did not contribute to the description of *apegiensis*.

Toxomerus sedmani bears a striking resemblance to *purus* (Curran), differing by the character of the scutum (that of *purus* has three grayish stripes) and the structure of the male genitalia (see below). The species is named in honor of Yale S. Sedman who guided my M.S. thesis research and collected the holotype specimen.

Toxomerus croesus (Hull)

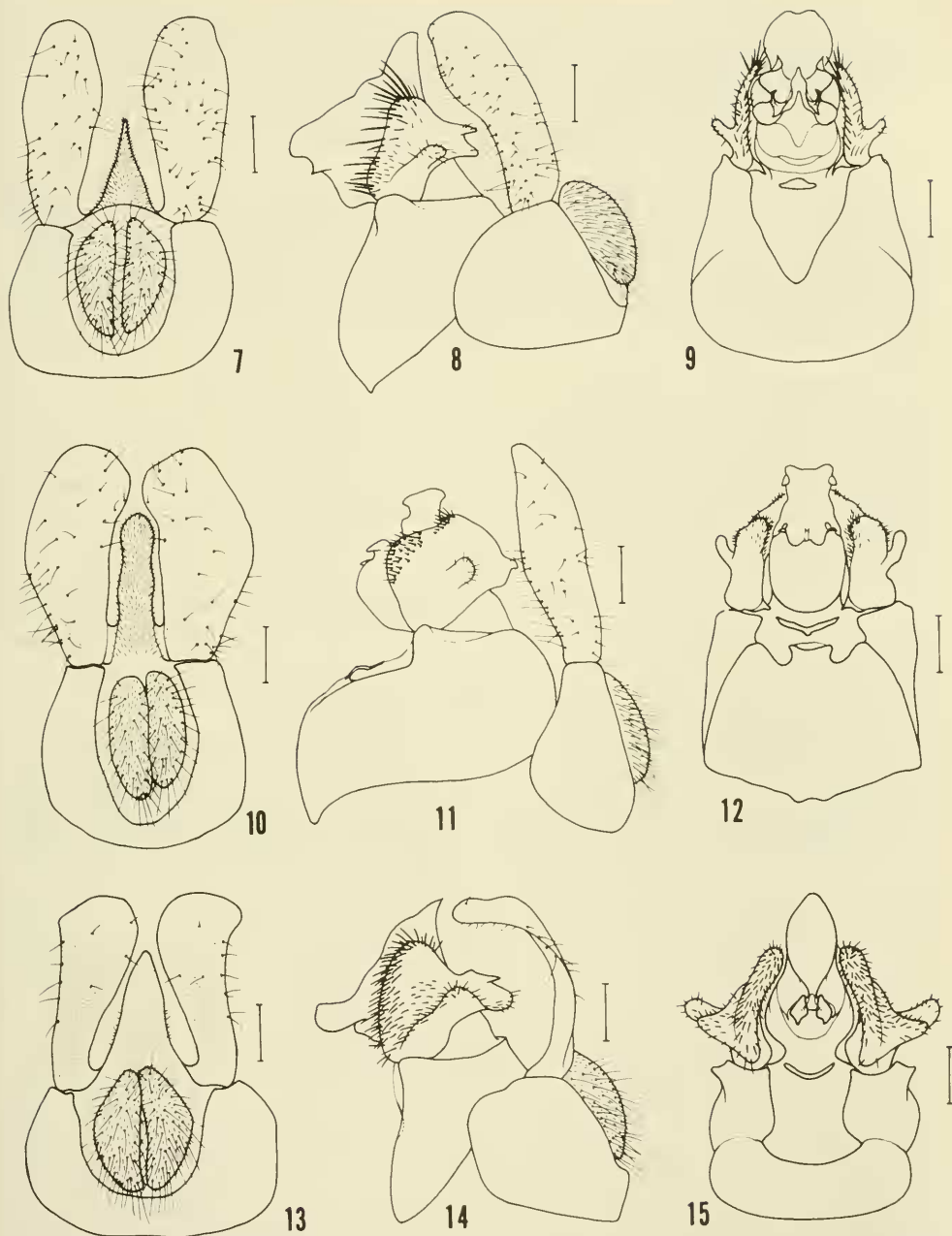
Figs. 7–9

Discussion.—The male genitalia of the holotype of *croesus* show that this species is more closely related to *sedmani* and *Toxomerus pictus* (Macquart) than to *apegiensis*. It is easily distinguished from these by the character of the median caudal lobe (= hypoproct of McAlpine, 1981) borne between the bases of the surstyli.

Toxomerus purus (Curran)

Figs. 10–12

Discussion.—The genitalia of the male holotype of *purus* differs markedly from that of *sedmani* despite otherwise remarkable similarity between the two species.



Figs. 7-15. Male genitalia. 7-9, *Toxomerus croesus* (Hull), holotype. 10-12, *Toxomerus purus* (Curran), holotype. 13-15, *Toxomerus sylvaticus* (Hull), holotype. 7, 10, 13—Dorsal. 8, 11, 14—Lateral (left side). 9, 12, 15—Ventral. Scale lines equal 0.125 mm.

The male genitalia of *purus* bears pronounced resemblance to that of *Toxomerus flaviplurus* (Hall), as figured by Harbach (1972) and Gerdes (1974), although the two species differ significantly in external color pattern.

Toxomerus sylvaticus (Hull)

Figs. 13–15

Discussion.—The male genitalia of the holotype of *sylvaticus* is quite distinct and bears little resemblance to that of other species which have been illustrated. This species is readily separated from both *croesus* and *apegiensis* by the characteristically-curved surstylus and the large lateral lobe of the paramere.

ACKNOWLEDGMENTS

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